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REMARKS/ARGUMENTS

In reply to the Final Office Action mailed June 14, 2007, Applicants respectfully request reconsideration and allowance of the subject application. Claims 3-8, 11, 23, 24 and 27-44 are rejected for obviousness. Claims 28 and 32 have been amended. Accordingly, claims 3-8, 11, 23, 24 and 27-44 remain pending in the subject application.

In the prior response filed March 22, 2007, Applicants made arguments that the Tsybulevskiy publication and the Bal patent are incompatible and that they do not disclose purging. Applicants hereby withdraw those arguments.

Claim 27 has been rejected for obviousness under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application Publication US 2002/0009404 (the "Tsybulevskiy publication") in view of U.S. Patent 6,482,316 (the "Bal patent") and U.S. Patent 4,354,929 (the "Wessels patent"). Claim 27 recites "fractionating the desorbent containing sulfur-oxidated compounds from step (c) in a split shell fractionation zone to recover a desorbent having a reduced concentration of sulfur-oxidated compounds". None of the Tsybulevskiy, Bal or Wessels references discloses fractionating in a split shell fractionation column. U.S. Patent 6,395,950 (the "Rice patent") has been cited against other claims in the subject application and teaches the fractionation of a stream 24 into three streams 20, 30 and 32. However, Applicants respectfully submit that there is no motivation to combine the teachings of the Rice patent with the teachings of the Tsybulevskiy publication or the Bal patent because neither of those disclosures pertains to processes that require the separation of three streams. In the Rice patent dimethylbutanes and isopentane are separated from a stream of methylcyclopentane, cyclohexane and C₇⁺ compounds and from a stream containing 2-methylpentane and 3-methylpentane. The Bal patent and the Tsybulevskiy publication teach the separation of sulfur compounds from a hydrocarbon stream by the use of an adsorbent. The only fractionation mentioned in either the Bal patent or the Tsybulevskiy publication is a two component separation of a desorbent from a desulfurized hydrocarbon stream in the Bal patent. Col. 3, lines 40-45. The Tsybulevskiy patent does not mention fractionation. Neither of these primary

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references disclose a process that requires separation of three components from each other. Additionally, the Wessels patent pertains to chemistry which is not related to the chemistry in the Tsybulevskiy publication and the Bal patent. The Wessels patent pertains to separating normal paraffins from isoparaffins by use of an adsorbent and a desorbent. Hence, the types of splits in the Wessels patent would not pertain to the two-component split performed in the Bal patent, let alone the Tsybulevskiy publication which mentions no fractionation. Accordingly, Applicants respectfully submit that there is no motivation for one of ordinary skill in the art to combine the teachings of the Rice patent with the Tsybulevskiy publication and the Bal patent to impose the use of a dividing wall column to obtain a three stream split.

Independent claim 28 was rejected under 35 U.S.C. §103(a) as being obvious over the Tsybulevskiy publication and the Bal patent. Claim 28 has been amended to recite "introducing desorbent containing sulfur-oxidated compounds from step (b) into a high sulfur, lower end zone of a split shell fractionation column" and "introducing an initial portion of an effluent from step (c) comprising desorbent from step (b) into a low sulfur, lower end zone of said split shell fractionation column". Support for this amendment is found at page 10, lines 7-11 and page 11, lines 2-4. The invention takes note of the fact that adsorbent that has been freshly desorbed of sulfur oxidated compounds still contains desorbent which can be recycled to the desorbing step. Hence, the hydrocarbon fed to the desorbed adsorbent bed pushes the desorbent out of the adsorbent bed and circulates the desorbent to the low sulfur, lower end zone of the split shell fractionation column. The hydrocarbons which push the desorbent from the desorbed adsorbent bed, less the sulfur which is adsorbed in the adsorbent bed, mixes with the desorbent and is then separated from the desorbent in the low sulfur zone 29 of the split shell fractionation column 4. Whereas, desorbent that is first fed to the bed of spent adsorbent containing a high loading of sulfur compounds desorbs the sulfur oxidated compounds and is routed to the high sulfur zone 28 of the split shell fractionation column 4. Hence, the desorbent is separated and recycled through line 17 to the desorption step while low sulfur hydrocarbons are recovered in line 7 from the low sulfur zone of the split shell fractionation column. None

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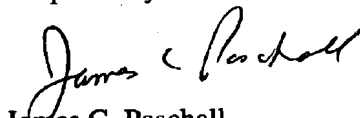
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of the cited references contemplates any such innovation. Accordingly, Applicants respectfully request reconsideration and allowance of claim 28. For at least the same reasons, Applicants respectfully request reconsideration and allowance of claims 3-8, 11 and 29-31.

Independent claim 32 is rejected for obviousness under 35 U.S.C. §103(a) as being unpatentable over the Tsybulevskiy publication in view of the Bal patent and the Wessels patent. Applicants respectfully request reconsideration and withdrawal of the rejection of claim 32 for obviousness. Applicants have amended claim 32 to recite contacting the adsorbent having adsorbed sulfur-oxidated compounds with a purge stream to displace interstitial hydrocarbons and then contacting the adsorbent having adsorbed sulfur-oxidated compounds with a desorbent and the "purge stream boiling in a range lower than the boiling range of the desorbent." Support for this amendment is found at page 7, lines 12-13. None of the Bal, Wessels or Tsybulevskiy references discloses using a purge stream and a desorbent stream of different materials which necessarily cannot have different boiling ranges as required in claim 32. For at least the same reasons, Applicants respectfully request reconsideration and allowance of claims 23, 24 and 33-44 depending from claim 32.

For the foregoing reasons, Applicants respectfully request reconsideration and allowance of all the claims 3-8, 11, 23, 24 and 27-44 pending in the subject application. Should the Examiner wish to discuss the matter further, he is invited to contact the undersigned.

Respectfully submitted,



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